Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently amended) A method of speech recognition of symbol sequences in which initially a spoken and recognized first symbol sequence is output by means of a speech output device for verification by a user and in case of a faulty recognition of the first symbol sequence a spoken second symbol sequence is recognized and compared with the first symbol sequence, the sub-symbol sequence of the first symbol sequence being determined partly corresponding to the second symbol sequence and having the lowest number and/or a predefined number of deviations from the second symbol sequence, and, finally, the first symbol sequence is corrected at the position of the sub-symbol sequence with the aid of the second symbol sequence, characterized in that the method comprising:

        determining the correcting sub-symbol sequence comprises a comparison comparing of the second symbol sequence with such sub-symbol sequences of the first symbol sequence that are a number of symbols longer or shorter than the second symbol sequence;

        comparing the second symbol sequence with such sub-symbol sequences of the first symbol sequence that are a number of symbols shorter than the second symbol sequence; and

        determining a correcting sub-symbol sequence based on the comparisons.

2.   (Original) A method as claimed in claim 1, characterized in that initially a search is made for a sub-symbol sequence that has the same length as the second symbol sequence, after that for at least a sub-symbol sequence that is longer than the second symbol sequence and, finally, for at least a sub-symbol sequence that is shorter than the second symbol sequence.

3.   (Currently amended) A method as claimed in claim 1 or 2, characterized in that when the sub-symbol sequence of the first symbol sequence is determined first sub-symbol sequences are searched for that have a deviation from the second symbol sequence at exactly one symbol

position and, finally, sub-symbol sequences that have a deviation from the second symbol

sequence at exactly two symbol positions while a deviation may be another, a lacking or an

additional symbol.

4.   (Currently amended) A method as claimed in any one of the claims 1 to 3, characterized

in that when the sub-symbol sequence of the first symbol sequence is determined, a search is to

be made for the following types of deviations of sub-symbol sequences:

–   sub-symbol sequences which have the same length as the second symbol sequence and
    have a different symbol than the second symbol sequence at a certain number of symbol
    positions,

–   sub-symbol sequences which have an additional symbol at a certain number of symbol
    positions compared with the second symbol sequence and which otherwise match the
    second symbol sequence or have a different symbol than the second symbol sequence at a
    certain number of symbol positions,

–   sub-symbol sequences in which a symbol is lacking at a certain number of symbol
    positions compared to the second symbol sequence and which otherwise match the
    second symbol sequence or have a different symbol than the second symbol sequence at a
    certain number of symbol positions.

5.   (Original) A method as claimed in claim 4, characterized in that for a certain type of

deviation a search is made for exactly one sub-symbol sequence of the first symbol sequence and

always the second symbol sequence is compared with various sub-symbol sequences of the first

symbol sequence which have each a length matching the second symbol sequence and type of

deviation, where the respective comparison is started with the sub-symbol sequence that forms

the end of the first symbol sequence and then, step by step the sub-symbol sequence to be

compared is shifted one symbol position forwards in the first symbol sequence until a sub-

symbol sequence of the desired type of deviation is found or until, finally, the second symbol

sequence is compared with the sub-symbol sequence that forms the beginning of the first symbol

sequence.

6.   (Currently amended) A method as claimed in one of the claims 1 to 5, characterized in that when the second symbol sequence is compared with a longer sub-symbol sequence of the first symbol sequence, a symbol at respectively changing symbol positions of the sub-symbol sequence is ignored during comparison and the respective remaining sub-symbol sequence is compared with the second symbol sequence and when the second symbol sequence is compared with a shorter sub-symbol sequence of the first symbol sequence a symbol located at respective changing symbol positions of the second symbol sequence is ignored during comparison and the respective remainder sequence of the second symbol sequence is compared with the sub-symbol sequence.

7.   (Currently amended) A method of speech recognition of symbol sequences, in which initially a spoken and recognized first symbol sequence is output for verification by a user by means of a speech output device (5, 6, 7) and when the first symbol sequence is recognized erroneously, a spoken second symbol sequence is compared with the first symbol sequence, a sub-symbol sequence of the first symbol sequence being determined that partly matches the second symbol sequence and has the lowest number and/or a predefined number of deviations from the second symbol sequence, and, finally, the first symbol sequence in the section of the sub-symbol sequence is corrected on the basis of the second symbol sequence, characterized in thatthe method comprising:

        determining an initial set of corrected versions of the first symbol sequence, wherein the initial set of corrected versions comprises a plurality of alternatives of corrected versions of the first symbol sequence; plurality of alternatives of corrected versions of the first symbol sequence is determined and

        outputting the initial set of corrected versions of the first symbol sequence to the user for verification purposes until a positive acknowledgement of an output corrected version of an abort command is received or until a limit value defined as an abort criterion is reached.

8.   (Original) A method as claimed in claim 7, characterized in that a maximum of a predefined number of alternative corrected versions of the first symbol sequence is determined and output.

9.   (Original) A method as claimed in claim 7, characterized in that at most all corrected versions of the first symbol sequence in which the number of deviations from the initially recognized first symbol sequence is situated below a maximum value, are determined and output.

10.   (Currently amended) A method as claimed in one of the claims 7 to 9, characterized in that the correcting sub-symbol sequence of the first symbol sequence is determined according to a method as claimed in any one of the claims 1 to 6.

11.   (Currently amended) A system for speech recognition of symbol sequences
    –   comprising a speech recognition device (3) for recognizing spoken symbol sequences and commands,
    –   comprising a speech output device (5, 6, 7) for outputting a spoken and recognized first symbol sequence to be verified by a user,
    –   comprising a comparator device (8) for comparing a spoken and recognized second symbol sequence with the first symbol sequence when the first symbol sequence is recognized erroneously and then determining a sub-symbol sequence of the first symbol sequence which partly corresponds with the second symbol sequence and then has the lowest and/or a predefined number of deviations from the second symbol sequence,
    –   and comprising a correction device (9) for correcting the first symbol sequence in the range of the sub-symbol sequence on the basis of the second symbol sequence,
characterized in that the comparator device (8) comprises means for making a comparison of the second symbol sequence with such sub-symbol sequences of the first symbol sequence that are a number of symbols longer or and shorter than the second symbol sequence.

12.   (Currently amended) A system for speech recognition of symbol sequences,
    –   comprising a speech recognition device (3) for recognizing spoken symbol sequences and commands,
    –   comprising a speech output device (5, 6, 7) for outputting a spoken and recognized first symbol sequence to be verified by a user,

- comprising a comparator device (8) for comparing a spoken and recognized second
symbol sequence with the first symbol sequence when the first symbol sequence is
recognized erroneously and then determining a sub-symbol sequence of the first symbol
sequence which partly corresponds with the second symbol sequence and then has the
lowest and/or a predefined number of deviations from the second symbol sequence,

- and comprising a correction device (9) for correcting the first symbol sequence in the
range of the sub-symbol sequence on the basis of the second symbol sequence,

characterized by means for determining a plurality of alternative corrected versions of the first
symbol sequence and outputting them to the user for verification purposes, and an interrupt
device which terminates the further determining and/or outputting of alternatives of corrected
versions of the first symbol sequence when a positive acknowledgement is received
of an output corrected version or of an abort command from the user or when a limit value
defined as an abort criterion is reached.

13.   (Original) A system as claimed in claim 12, characterized by a comparator device as
claimed in claim 11.

14.   (Currently amended) A computer readable storage medium encoded with computer
executable instructions, the computer executable instructions, when executed by a processor
cause the process to perform program comprising program code means for executing all steps of
the method as claimed in any one of the claims 1 to 10 when the program is run on a computer
the following steps:

       outputting by means of a speech output device a recognized first symbol sequence which
is initially spoken by a user for verification by the user, wherein a faulty recognition of the first
symbol sequence occurs a spoken second symbol sequence is recognized and compared with the
first symbol sequence;

       determining a sub-symbol sequence of the first symbol sequence partly corresponding to
the second symbol sequence and having the lowest number and/or a predefined number of
deviations from the second symbol sequence; and

correcting the first symbol sequence at a position of the sub-symbol sequence with the aid of the second symbol sequence, wherein determining the correcting sub-symbol sequence comprises a comparison of the second symbol sequence with such sub-symbol sequences of the first symbol sequence that are a number of symbols longer and shorter than the second symbol sequence.

15. (Currently amended) The computer readable storage medium encoded with computer executable instructions as claimed in claim 14, the computer executable instructions, when executed by the processor cause the processor to further perform the following step: A computer program comprising program code means as claimed in claim 14 which are stored on a data carrier that can be read by computer searching for a first sub-symbol sequence that has the same length as the second symbol sequence and for a second at least a sub-symbol sequence that is longer than the second symbol sequence and for a third at least a sub-symbol sequence that is shorter than the second symbol sequence.

16. (New) The method of claim 1, wherein correcting the sub-symbol sequence includes generating a plurality of corrected versions of the first symbol sequence in which the second symbol sequence is exchanged for the sub-symbol sequences, wherein one of the corrected versions of the first symbol sequence includes second symbol sequences which are longer than the exchanged sub-symbol sequence and another of the corrected versions of the first symbol sequence includes second symbol sequences which are shorter than the exchanged sub-symbol sequence.

17. (New) The method of claim 7, wherein outputting the initial set of corrected versions of the first symbol sequence to the user for verification occurs after the second symbol sequence is spoken without further user interaction.

18. (New) The computer readable storage medium encoded with computer executable instructions as claimed in claim 14, the computer executable instructions when executed by the

processor cause the processor to further perform the following steps: correcting the first symbol sequence in the section of the sub-symbol sequence on the basis of the second symbol sequence, wherein a plurality of alternatives of corrected versions of the first symbol sequence are determined and output to the user for verification purposes until a positive acknowledgement of an output corrected version of an abort command is received or until a limit value defined as an abort criterion is reached.

19.   (New) The computer readable storage medium encoded with computer executable instructions as claimed in claim 14, the computer executable instructions when executed by the processor cause the processor to further perform the following step: searching for an exactly one sub-symbol sequence of the first symbol sequence and always comparing the second symbol sequence with various sub-symbol sequences of the first symbol sequence which have each a length matching the second symbol sequence and type of deviation, wherein comparison is started with the sub-symbol sequence that forms the end of the first symbol sequence and then, step by step the sub-symbol sequence to be compared is shifted one symbol position forwards in the first symbol sequence until a sub-symbol sequence of the desired type of deviation is found or until the second symbol sequence is compared with the sub-symbol sequence that forms the beginning of the first symbol sequence.

20.   (New) The computer readable storage medium encoded with computer executable instructions as claimed in claim 14, the computer executable instructions when executed by the processor cause the processor to implement a system for speech recognition of symbol sequences comprising:

a speech recognition device for recognizing spoken symbol sequences and commands;

a speech output device for outputting a spoken and recognized first symbol sequence to be verified by a user;

a comparator device for comparing a spoken and recognized second symbol sequence with the first symbol sequence when the first symbol sequence is recognized erroneously and then determining a sub-symbol sequence of the first symbol sequence which partly corresponds with the second symbol sequence and then has the lowest and/or a predefined number of

deviations from the second symbol sequence, wherein the comparator device comprises means for making a comparison of the second symbol sequence with such sub-symbol sequences of the first symbol sequence that are a number of symbols longer or shorter than the second symbol sequence; and

a correction device for correcting the first symbol sequence in the range of the sub-symbol sequence on the basis of the second symbol sequence.